

**FILED**

**FEB 12 2019**

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TENNESSEE  
AT GREENEVILLE

Clerk, U. S. District Court  
Eastern District of Tennessee  
At Greeneville

UNITED STATES OF AMERICA )  
 )  
 v. )  
 )  
 XIAORONG YOU )  
 aka SHANNON YOU )  
 and )  
 LIU XIANGCHEN )

No. 2:19-CR-14  
Judge: Greer

**FILED UNDER SEAL**

**INDICTMENT**

The Grand Jury in and for the Eastern District of Tennessee, sitting in Greeneville, charges:

**COUNT ONE**

**(Conspiracy to Commit Theft of Trade Secrets, 18 U.S.C. § 1832(a)(5))**

1. Beginning not later than on or about March 16, 2017 and continuing through at least on or about November 10, 2018, in the Eastern District of Tennessee and elsewhere, the defendants XIAORONG YOU and LIU XIANGCHEN, knowingly conspired and agreed together and with “Co-Conspirator #1” and other persons known and unknown to the grand jury, to steal trade secret information that cost at least approximately \$119,600,000 to develop, that is:

(a) With intent to convert a trade secret that was related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of persons other than the trade secret’s owner, and intending and knowing that the offense would injure the trade secret’s owner, the defendants conspired to knowingly steal, and without authorization appropriate, take, carry away, and conceal such information, in violation of 18 U.S.C. § 1832(a)(1);

(b) With intent to convert a trade secret that was related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of persons other than the trade secret's owner, and intending and knowing that the offense would injure the trade secret's owner, the defendants conspired to knowingly and without authorization copy, duplicate, photograph, download, upload, replicate, transmit, deliver, send, mail, communicate, and convey such information, in violation of 18 U.S.C. § 1832(a)(2); and

(c) With intent to convert a trade secret that was related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of persons other than the trade secret's owner, and intending and knowing that the offense would injure the trade secret's owner, the defendants conspired to knowingly possess such information, knowing the same to have been stolen and appropriated, obtained, and converted without authorization, in violation of 18 U.S.C. § 1832(a)(3);

such trade secret information ("TSI") relating primarily to:

- a formulation for a bisphenol-A-free (as defined in paragraph 2) coating for use inside cans (*e.g.*, beer or other beverage cans) that prevents the contents of the can from interacting with the metal surface of the can over time, owned by "TSI Owner #1";
- the chemical substances used to create a substitute for epoxy coatings containing bisphenol-A, owned by "TSI Owner #2";
- newly-developed bisphenol-A-free polyolefin dispersion coatings for the inside of food and drink cans, such as aluminum soda cans, that protect both the can from corrosion and its contents from contamination by the can's material, owned by "TSI Owner #3";
- formulas used to develop bisphenol-A-free interior sprays for aluminum and steel food and beverage cans, owned by "TSI Owner #4";

- the development of bisphenol-A-free liquid coating compositions for forming FDA-compliant and EU-compliant, food-contact-safe coatings on the surfaces of metal beverage cans and in the development of analogous coatings for metal food cans owned by “TSI Owner #5”;

- information used in the process of developing “Gen-2,” bisphenol-A-free coating technologies for aluminum food-grade beverage containers, owned by “TSI Owner #6”; and
- resins for use in bisphenol-A-free coatings for the interior of rigid metal packaging, owned by “Employer #2” located in Kingsport, Tennessee.

## **BACKGROUND**

2. Corporations like “Employer #1” use various chemical technologies to coat the inside of cans and other food and beverage containers. These chemical technologies were designed to adhere to the container, minimize flavor loss, and prevent the container from corroding or reacting with the food or beverage contained therein, all without posing any threat to human health. Until recently, many containers were coated using a polycarbonate plastic made from a chemical called bisphenol-A (“BPA”). Due to possible harmful effects of BPA, companies like Employer #1 began searching for alternatives to BPA; such alternatives are known as “bisphenol-A not intended” or “BPA-NI” (“BPA-free”). These alternatives are difficult to develop.

3. During the time period of the conspiracy, Employer #1 had agreements with numerous companies including TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, and TSI Owner #6, to conduct research and development, testing, analysis, and review of various BPA-free-related technologies.

4. These agreements contemplated that TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, and TSI Owner #6 would each disclose confidential information, including TSI, to Employer #1 for the narrow purpose of performing such research and development, testing, analysis, and review. These agreements also required that Employer #1 would take reasonable measures to protect the confidentiality of TSI, including by requiring that TSI be further disclosed only on a need-to-know basis and only to persons specifically approved by the owners of the TSI.

5. XIAORONG YOU had extensive education and experience with BPA and BPA-free coating technologies. XIAORONG YOU claimed a Ph.D. in Polymer Science and Engineering from Lehigh University and worked in various sophisticated roles for numerous companies throughout the United States dating back to May 1992. XIAORONG YOU had particular experience developing coating technologies for various food and beverage manufacturers.

6. From in or about December 2012 through on or about August 31, 2017, XIAORONG YOU was employed as Principal Engineer for Global Research at Employer #1 in Atlanta, Georgia. During her employment at Employer #1, XIAORONG YOU was one of a limited number of employees with access to TSI belonging to TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, and TSI Owner #6, pursuant to the agreements discussed above.

7. Employer #2, located in Kingsport, TN, also competes in the BPA-free coating technologies business.

8. From on or about September 1, 2017 through on or about June 22, 2018, XIAORONG YOU was employed as a Packaging Application Development Manager for

Employer #2 in Kingsport, Tennessee. During her employment at Employer #2, XIAORONG YOU was one of a limited number of employees with access to TSI belonging to Employer #2.

9. During the conspiracy, "China Company #1" was a company based in the Shandong province of China. During the conspiracy, LIU XIANGCHEN was the General Manager of China Company #1.

10. The Chinese government sponsored a program entitled "The Thousand Talents." This program was designed to induce individuals with advanced technical education, training, and experience residing in Western countries to return or move to China and use their expertise to promote China's economic and technological development. The Thousand Talents application process was competitive, and those who were selected sometimes received an annual payment from the Chinese government calculated as a percentage of the applicant's current salary.

11. Various provincial Chinese governments had award programs similar to the national Thousand Talent Program. The provincial government for Shandong Province sponsored a program entitled "Yishi-Yiyi." Like the Thousand Talents Program, Yishi-Yiyi paid a monetary award to successful applicants with proposals to bring technology to the province.

12. "Co-Conspirator #1" is believed to be a relative of XIAORONG YOU, and is believed to live in China.

### **OBJECTS OF THE CONSPIRACY**

13. It was part of the conspiracy that XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1, acting together, conspired to steal, appropriate, copy, duplicate, photograph, download, upload, replicate, transmit, deliver, send, communicate, convey, receive, and possess TSI related to a product or service used or intended for use in interstate or foreign commerce, for the economic benefit of persons other than the owners of the TSI, intending or knowing that the

offense would injure TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, TSI Owner #6, and Employer #2.

### **MANNER AND MEANS**

It was part of the conspiracy that XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 formulated a plan and agreement that, among other things, included the following:

14. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that XIAORONG YOU would exploit her employment with Employer #1 and Employer #2 to steal TSI belonging to TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, TSI Owner #6, and Employer #2.

15. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that XIAORONG YOU would then transfer the stolen TSI to China Company #1 and that XIAORONG YOU would become an employee of China Company #1.

16. In exchange, LIU XIANGCHEN agreed to cause China Company #1 to pay XIAORONG YOU for her involvement in the conspiracy and to help her obtain the Thousand Talent annual award and the Yishi-Yiyi award from the Chinese government using the stolen TSI as the basis for XIAORONG YOU's application to each award program.

17. Co-Conspirator #1 agreed to serve as an intermediary between XIAORONG YOU, on the one hand, and LIU XIANGCHEN and China Company #1, on the other hand, by negotiating with LIU XIANGCHEN and China Company #1 on XIAORONG YOU's behalf, by passing communications between them, by facilitating the transfer of payments from LIU XIANGCHEN and China Company #1 to XIAORONG YOU, and by providing other assistance.

18. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that they

would form a new Chinese company (“China Company #2”) to hold ownership of the stolen TSI, and that each of China Company #1, XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 would own part of China Company #2.

19. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that they would attempt to enlist the assistance of an Italian company (“Italian Company #1”) in a joint venture with China Company #2, for the purpose of establishing a market presence for China Company #2 in China using Italian Company #1’s established BPA-free manufacturing abilities.

20. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 further agreed that after the joint venture with Italian Company #1 had helped established China Company #2 as a China-based manufacturer of BPA-free coatings, China Company #2 would build a laboratory capable of producing second-generation BPA-free coatings with the stolen TSI.

21. XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that China Company #2 would then compete with U.S. and foreign companies, including some of the owners of the stolen TSI, in China and elsewhere by selling products designed, developed, and manufactured using the stolen TSI.

### **OVERT ACTS**

In furtherance of the conspiracy and to effect its unlawful objects, the following overt acts, among others, were committed by XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 in the Eastern District of Tennessee and elsewhere:

22. In or about March 2017, XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 agreed that XIAORONG YOU would steal TSI in part for the purpose of establishing a Chinese company to manufacture and profit from products developed using the stolen TSI.

23. In or about the summer of 2017, LIU XIANGCHEN and China Company #1 agreed to sponsor XIAORONG YOU's application to China's Thousand Talent Program so that LIU XIANGCHEN and China Company #1 could be paid by the Chinese government for their plan to develop technology that they knew to be based upon stolen TSI.

24. In or about the fall of 2017, LIU XIANGCHEN caused China Company #1 to agree to sponsor XIAORONG YOU's application to China's Yishi-Yiyi project so that LIU XIANGCHEN and China Company #1 could be paid by the Chinese government to develop technology that XIAORONG YOU, LIU XIANGCHEN, and Co-Conspirator #1 knew to be derived from stolen TSI.

25. On or about August 10, 2017, XIAORONG YOU, in exchange for a payment from Employer #1 of approximately \$33,912, signed a written agreement in which she falsely represented to Employer #1 that she had not retained, and no longer had access to, any TSI or confidential information.

26. On or about August 17, 2017, XIAORONG YOU traveled to China for the purpose of defending, with LIU XIANGCHEN's assistance, her application to the Yishi-Yiyi award program using the stolen TSI.

27. On or about August 25, 2017, XIAORONG YOU opened files containing TSI on a computer and took photographs of those TSI files while they were open on the computer screen, to bypass Employer #1's security measures.

28. On or about August 29, 2017 and October 2, 2017, XIAORONG YOU transferred TSI stolen from TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, and TSI Owner #6 to an external hard drive in her possession.

29. On or about September 1, 2017, XIAORONG YOU obtained employment at

Employer #2 in part for the purpose of stealing TSI in furtherance of the conspiracy.

30. From on or about September 17, 2017 through on or about September 21, 2017, XIAORONG YOU traveled from the Eastern District of Tennessee to China for the purpose of defending, with LIU XIANGCHEN's assistance, her application to the Thousand Talents award program using the stolen TSI.

31. On or about October 23, 2017, Co-Conspirator #1 forwarded to XIAORONG YOU a message from LIU XIANGCHEN in which LIU XIANGCHEN stated that he submitted false information to one of the talent programs in order to increase the possible monetary award they could receive.

32. On or about September 29, 2017, October 23, 2017, March 1, 2018, March 7, 2018, April 5, 2018, April 11, 2018, May 24, 2018, May 27, 2018, and May 31, 2018, among other dates, Co-Conspirator #1 forwarded or conveyed to XIAORONG YOU messages from LIU XIANGCHEN made in furtherance of the conspiracy. These facilitated communications pertained to a variety of topics germane to the conspiracy, including the formation of China Company #2, the various equity shares of China Company #2 to be owned by each conspirator, the result of the Thousand Talents award application, the amounts paid by the Yishi-Yiyi award program, building a project team for purposes of expanding the operations of China Company #1, concealing XIAORONG YOU's involvement in the conspiracy to protect her while she remained in the United States, the process of approaching Italian Company #1 to be part of a joint venture, and paying XIAORONG YOU for the work she had already done in furtherance of the conspiracy, among other topics.

33. On or about May 2018, XIAORONG YOU traveled from the Eastern District of Tennessee to China and met with LIU XIANGCHEN for the purpose of presenting market

research to the management of China Company #1, finalizing the terms of a written agreement made in furtherance of the conspiracy and discussing the next steps of the conspiracy, including forming China Company #2 and establishing a joint venture with Italian Company #1.

34. On or about May 7, 2018, XIAORONG YOU and China Company #1, with LIU XIANGCHEN's collaboration, entered into a written "collaboration agreement" setting forth some of the terms of their conspiracy.

35. On or about June 11, 2018, XIAORONG YOU took photos of Employer #2 laboratory equipment located in secure and restricted Employer #2 laboratories in the Eastern District of Tennessee for the purpose of showing LIU XIANGCHEN and others involved in the conspiracy the types of industrial laboratory equipment needed to further the conspiracy.

36. On or about June 21, 2018, XIAORONG YOU, while in the Eastern District of Tennessee, knowing that she was about to be fired from Employer #2, uploaded to her Google drive account, by wire transmission in interstate or foreign commerce, files containing TSI that she had stolen from Employer #2.

37. On or about June 21 and June 22, 2018, XIAORONG YOU, for the purpose of deceiving Employer #2, represented falsely to Employer #2 that XIAORONG YOU had not retained copies of confidential information containing TSI owned by Employer #2.

38. On or about June 22, 2018, XIAORONG YOU, while working for Employer #2 and living in the Eastern District of Tennessee, knowingly possessed an external hard drive containing TSI stolen from TSI Owner #1, TSI Owner #2, TSI Owner #3, TSI Owner #4, TSI Owner #5, TSI Owner #6, and Employer #2 with the intent to use that TSI to the detriment of its owners.

39. On or about the evening of June 22, 2018, XIAORONG YOU, having been caught in possession of stolen TSI, attempted unsuccessfully to cause a representative of Employer #2 to destroy evidence that XIAORONG YOU had copied stolen TSI to the external hard drive in her possession.

All in violation of 18 U.S.C. § 1832(a)(5).

**COUNTS TWO – EIGHT**  
**(Theft of Trade Secrets, 18 U.S.C. § 1832(a)(3))**

40. Paragraphs 1 through 39 are incorporated herein by reference and re-alleged as though fully set forth in the following counts.

41. On or about June 22, 2018, in the Eastern District of Tennessee, XIAORONG YOU, with intent to convert the trade secrets identified in the chart below, each of which was related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of persons other than the trade secret owner specified in the chart below, and intending and knowing that the offense would injure the owner specified in the chart below, knowingly possessed such information, knowing the same to have been stolen and appropriated, obtained, and converted without authorization:

Count	Owner	Trade Secret	Approximate Cost to Develop
(2)	TSI Owner #1	A formulation for a BPA-free coating for use inside cans ( <i>i.e.</i> , beer or other beverage cans) that prevents the contents of the can from interacting with the metal surface of the can over time, owned by TSI Owner #1.	\$7,300,000
(3)	TSI Owner #2	The chemical substances used to create a substitute for epoxy coatings containing BPA, owned by TSI Owner #2.	\$1,500,000

(4)	TSI Owner #3	Newly-developed BPA-free polyolefin dispersion coatings for the inside of food and drink cans, such as aluminum soda cans, that protect both the can from corrosion and its contents from contamination by the can's material, owned by TSI Owner #3	\$25,000,000
(5)	TSI Owner #4	Formulas used to develop BPA-free interior sprays for aluminum and steel food and beverage cans, owned by TSI Owner #4.	\$39,000,000
(6)	TSI Owner #5	The development of BPA-free liquid coating compositions for forming FDA-compliant and EU-compliant, food-contact-safe coatings on the surfaces of metal beverage cans and in the development of analogous coatings for metal food cans, owned by TSI Owner #5.	\$30,000,000
(7)	TSI Owner #6	Information used in the process of developing "Gen-2," BPA-free coating technologies for aluminum food-grade beverage containers, owned by TSI Owner #6.	\$3,800,000
(8)	Employer #2	Resins for use in BPA-free coatings for the interior of rigid metal packaging, owned by Employer #2.	\$13,000,000

Each count being in violation of 18 U.S.C. § 1832(a)(3).

**COUNT NINE**  
**(Wire Fraud, 18 U.S.C. § 1343)**

42. Paragraphs 1 through 39 are incorporated herein by reference and re-alleged as though fully set forth in the following counts.

43. From on or about June 21, 2018 to on or about June 22, 2018, in the Eastern District of Tennessee, the defendant, XIAORONG YOU, having devised and intending to devise a scheme to defraud, and to obtain money and property by means of materially false or fraudulent pretenses, representations, and promises, transmitted and caused to be transmitted by means of wire communication in interstate and foreign commerce writings, signs, signals, pictures, and sounds for the purpose of executing such scheme and artifice; that is, XIAORONG

YOU uploaded trade secret information owned by Employer #2 by means of wire communication in interstate commerce to XIAORONG YOU's personal Google Drive account, and then represented falsely to Employer #2 that XIAORONG YOU had not retained copies of trade secret information owned by Employer #2, in violation of 18 U.S.C. § 1343.

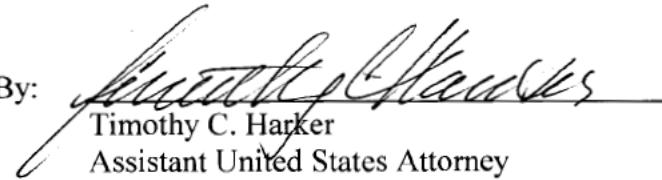
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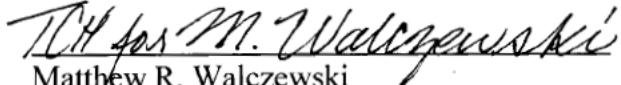
A True Bill:

  
Foreperson

Approved:

J. Douglas Overbey  
United States Attorney

By:   
Timothy C. Harker  
Assistant United States Attorney

By:   
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